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Guidelines for Growing Dryland Pinto Bean in Saskatchewan

FarmFacts

Produced by Saskatchewan Agriculture and Food and Saskatchewan Rural Development

Pinto beans *(Phaseolus vulgaris)* are consumed as human food in many countries. About 40% of the nearly 2,000,000 acre North American dry bean crop is in the pinto class. The crop is both exported and domestically consumed. The major dryland production for pinto bean is North Dakota. In Canada, dryland production is centred in southern Manitoba.

In Saskatchewan, dryland pinto bean production is in the very early stages of development. Experienced lentil growers in the dark brown soil zone with hoe-drills and flex header/air reel harvesting systems can handle pinto bean production without additional investment in machinery. However, research and demonstration experience on dryland is very limited at present.

The purpose of this publication is to provide some guidance to groups or individuals wishing to experiment with pinto bean production on dryland in the dark brown soil zone. It is assumed that potential growers are already familiar with lentil production and that the crop will be seeded on summerfallow.

Choosing a Suitable Field

- dry bean is killed by frost at all stages of growth
- avoid fields that can be frost pockets
- seed on summerfallow (needs more water than lentil)
- good water holding capacity and good drainage are beneficial
- avoid salinity — the crop is very sensitive
- avoid fields that have potential for Sclerotinia infection

Seeding

- use soil test recommendations similar to lentil
- sideband P if necessary
- prepare seedbed as for lentil
- avoid fields that have perennial and broadleaf weed problems
- use certified disease free seed to avoid bacterial blight
- seed between May 20 and May 27 when soil is warm
- on dryland, use the varieties Fiesta or Othello. these are earlier varieties and early maturity is ESSENTIAL in Saskatchewan
- order seed well in advance of seeding (November/December)
- seed into moist, warm seedbed at 2 - 2.5 inches
- inoculate with dry bean strain of Rhizobium
- use a sticker or self-sticking inoculant before seeding
- use hoe-drills capable of handling large seeds
- seed in 7 - 14 inch rows
- unlike lentil, cotyledons emerge and remain above ground
- emergence takes 6 - 12 days depending on soil temperature

Controlling Weeds

- avoid field with broadleaf weed problems
- incorporate trifluralin before seeding
- do NOT use METRIBUZIN (Sencor) on dry bean crops
- use bentazon (Basagren) for post-emergent broadleaf weed control at around 3rd trifoliate leaf
- to control grasses, use standard herbicides like Poast, Hoe-grass 284
- plants are HIGHLY SENSITIVE to 2,4-D, MCPA and Banvel. Avoid spray drift
- avoid fields that have had herbicides with residue characteristics
- use recommended rates and times of application

Controlling Diseases

- use certified disease-free seed to avoid common bacterial blight and other seed-borne diseases
- avoid fields with herbicide residues harmful to dry bean
- avoid fields with history of Sclerotinia

Harvesting

- harvest when leaves have fallen off and most pods are dry
- harvest will normally be in mid-September
- direct combine at 16-18% moisture to minimize seed damage
- level, stone-free fields are advised
- desiccation may speed drying but not maturity
- in most years, frost will desiccate the crop for free
- safe storage is 18% moisture

Marketing

- local pulse crop processors can arrange cleaning and marketing
- many pulse crop contracting companies can handle dry beans
- aim for container lots for easier marketing
- make use of the tripartite stabilization plan to minimize downside price risk

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Bert Vandenberg
Sask. Water Corp.

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